



Healthy People Living in Healthy Communities

Role of Environmental Services

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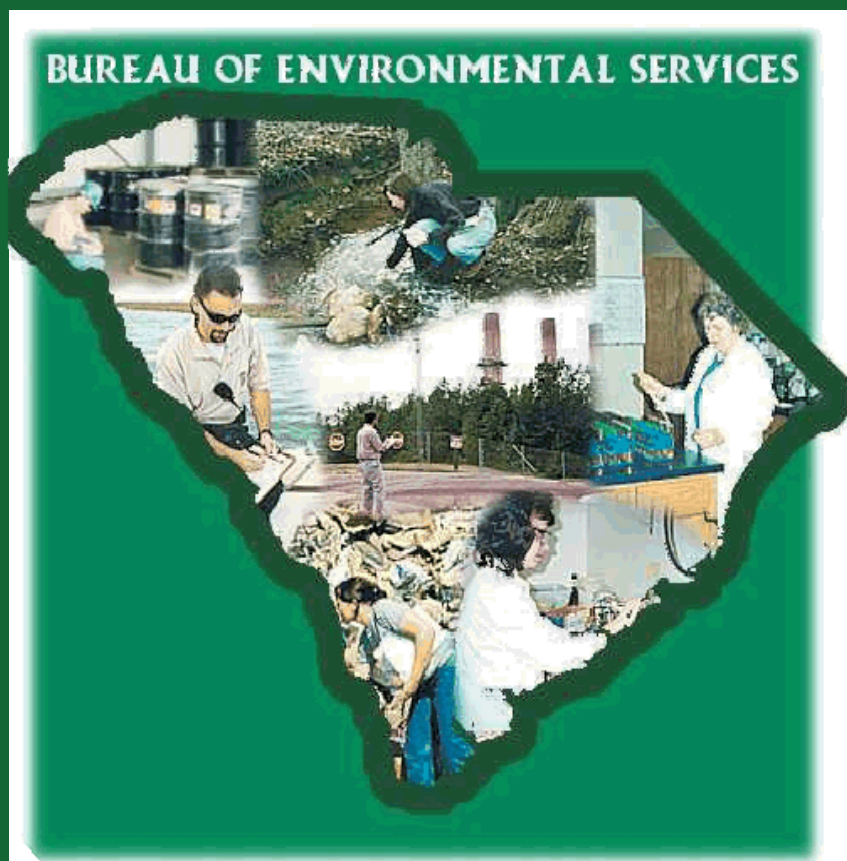
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Outline

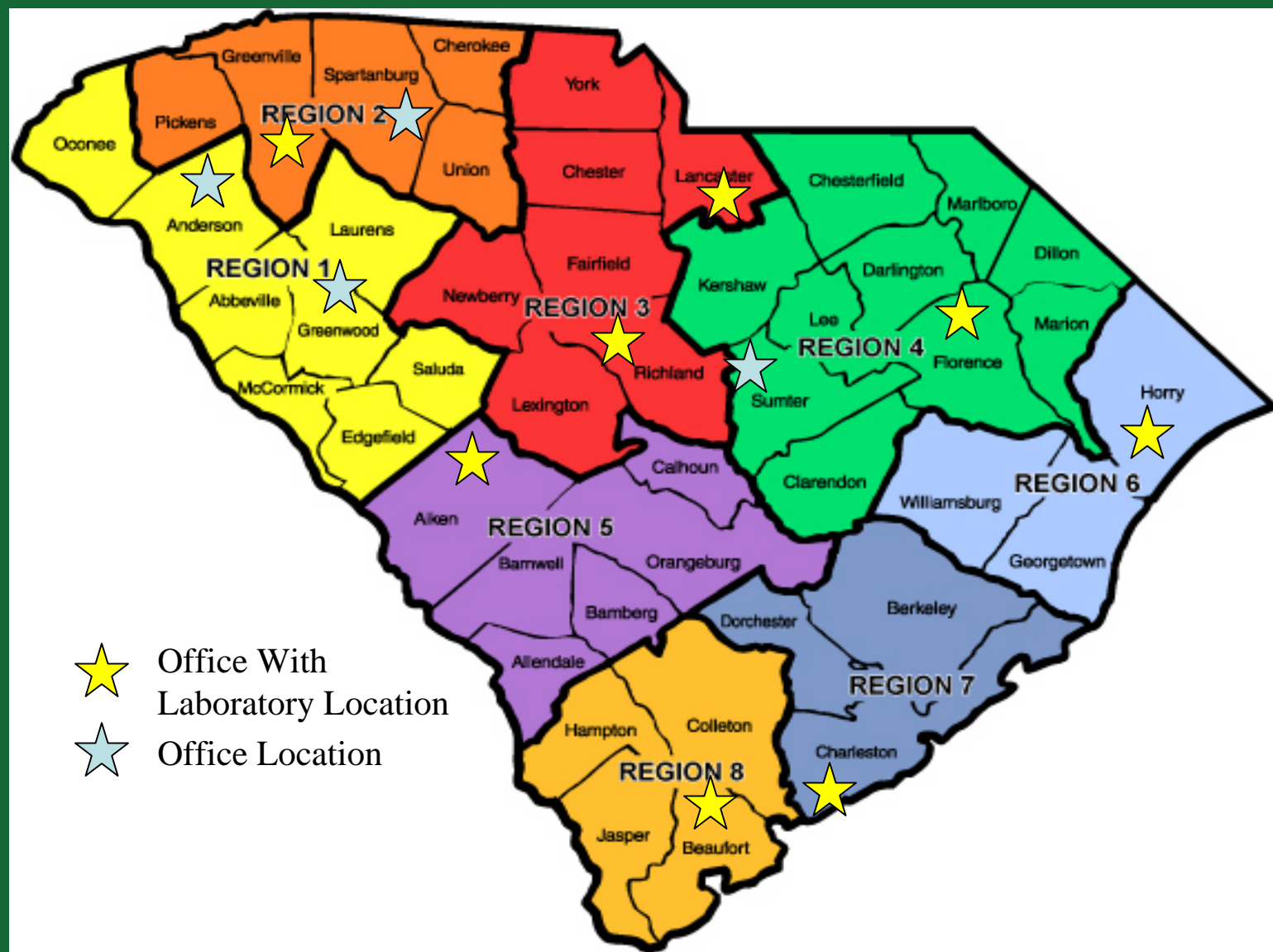
- Bureau of Environmental Services Overview
- An inspector's main goal and the general inspection process
- Air, Land & Waste Management, Water and Laboratory Certification Overview
- Common Problems
- Questions?



What is Environmental Services?



- Largest Bureau in EQC with ~ 356 staff
- Comprised of EQC Labs and 12 Field Offices located in 8 Regions across SC
- Provides state-wide monitoring & inspections for each EQC program & provides environmental data for program decision-making



Regional Personnel

- Regional Director
- Program Managers
- Hydrologists
- Engineers
- Environmental Health Managers
- Microbiologists
- Chemists
- Law Enforcement
- Administrative Personnel
- Information Resource Consultants



Environmental Media

- Air
- Solid Waste
- Hazardous Waste
- Infectious Waste
- Wastewater
- Drinking Water
- Recreational Water
- Beach Monitoring
- Storm water
- Dam Safety
- Mining and Reclamation
- Shellfish
- Agricultural
- Private Well
- Underground Storage Tank

Activities

- Inspections
- Compliance Assistance
- Complaints
- Monitoring/ Sampling
- Emergency Response
- Special Projects
- Permitting
- Enforcement Referral
- Customer Service
- Public Outreach/ Education
- Community Partnerships
- Laboratory Analysis
- Law Enforcement

EQC Labs

- Provides analytical data & services to the Bureau's of Air Quality, Water, Land & Waste Management, and the public
- Provides analytical data & services to the Bureaus of Air Quality, Water, Land & Waste Management, and the public
- Oversees the implementation of the Agency's Quality Assurance Management Plan (QAMP)



Analytical & Radiological **Environmental Services Division**

- Microbiological & chemical analysis of water, soil, fish, leachate, and chemical waste samples
- Over 350,000 analyses provided to the public and the EQC programs annually
- Technical support for 7 regional laboratories, the 12 EQC field offices, and each EQC program

Analytical & Radiological Environmental Services Division (con't.)

- Monitors radioactive contamination in drinking water, surface water, air, milk, fish, vegetation, and soils around nuclear facilities throughout the state
- Administers the State Indoor Radon Grant Program
- Maintains a mobile rad lab for radiological emergencies or special investigations
- Over 28,000 radiological analyses performed annually



Office of Environmental Laboratory **Certification**

- Certifies approximately 600 labs
- Evaluates in-state labs on a three year cycle including on-site visits
- Determines adherence to federally approved methodology, QC protocols, record keeping, and reporting practices
- Provides technical support to EQC programs on analytical methods and data reporting

Inspector's Main Goals

- Ensuring compliance with permit requirements and regulations
- Reporting facts accurately



General Inspection Process

- Pre-Inspection Preparation
- Site Entry
- Opening Conference
- Inspection
- Closing Conference
- Inspection Report



Air Inspections

Primary Purpose for the Inspection

Ensuring compliance with permit requirements and State and Federal Regulations



Regional Air Inspections

Comprehensive
Continuous Emission Monitor
Construction Permit
Source Test
Routine

Top Five Most Common Problems

5. Pollution control device malfunctions
4. Missing or late reports
3. Improper or missing recordkeeping
2. Unpermitted equipment
1. Not reading or understanding permits

Air Inspections

Key Elements for Compliance

Read & Understand Permit!

Permit/Records easily accessible!

General Housekeeping!

DOCUMENT – DOCUMENT – DOCUMENT!

COMPLIANCE ASSISTANCE

COMMUNICATION is critical!





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**THE REGIONS INSPECT HAZARDOUS WASTE
GENERATORS, TRANSPORTERS, AND TSDFs**

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Municipal Solid Waste Landfills



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C&D, Land Clearing Debris, and Industrial Landfills



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Other types of Solid Waste Management Sites that Chip, Mulch, Compost, Process, or Incinerate.



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Mines





**The Regions also work with our Central Office and EPA in investigating and removing contaminated substances.
(During Soil Removal)**



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**These include Superfund, Brownfield, and
Voluntary Cleanup Program Sites.
(After Restoration)**



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**REGULATED UNDERGROUND STORAGE TANKS
ARE INSPECTED ONCE EVERY 13 MONTHS.
UNDERGROUND STORAGE TANKS ARE THE
LARGEST SOURCE OF GROUND WATER
CONTAMINATION.**



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**ALL REGIONAL OFFICES HAVE AN EMERGENCY
RESPONSE TEAM WHICH RESPONDS TO
OIL/HAZARDOUS MATERIALS SPILLS AND FISH KILLS.**



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SOME SPILLS ARE WORSE THAN OTHERS



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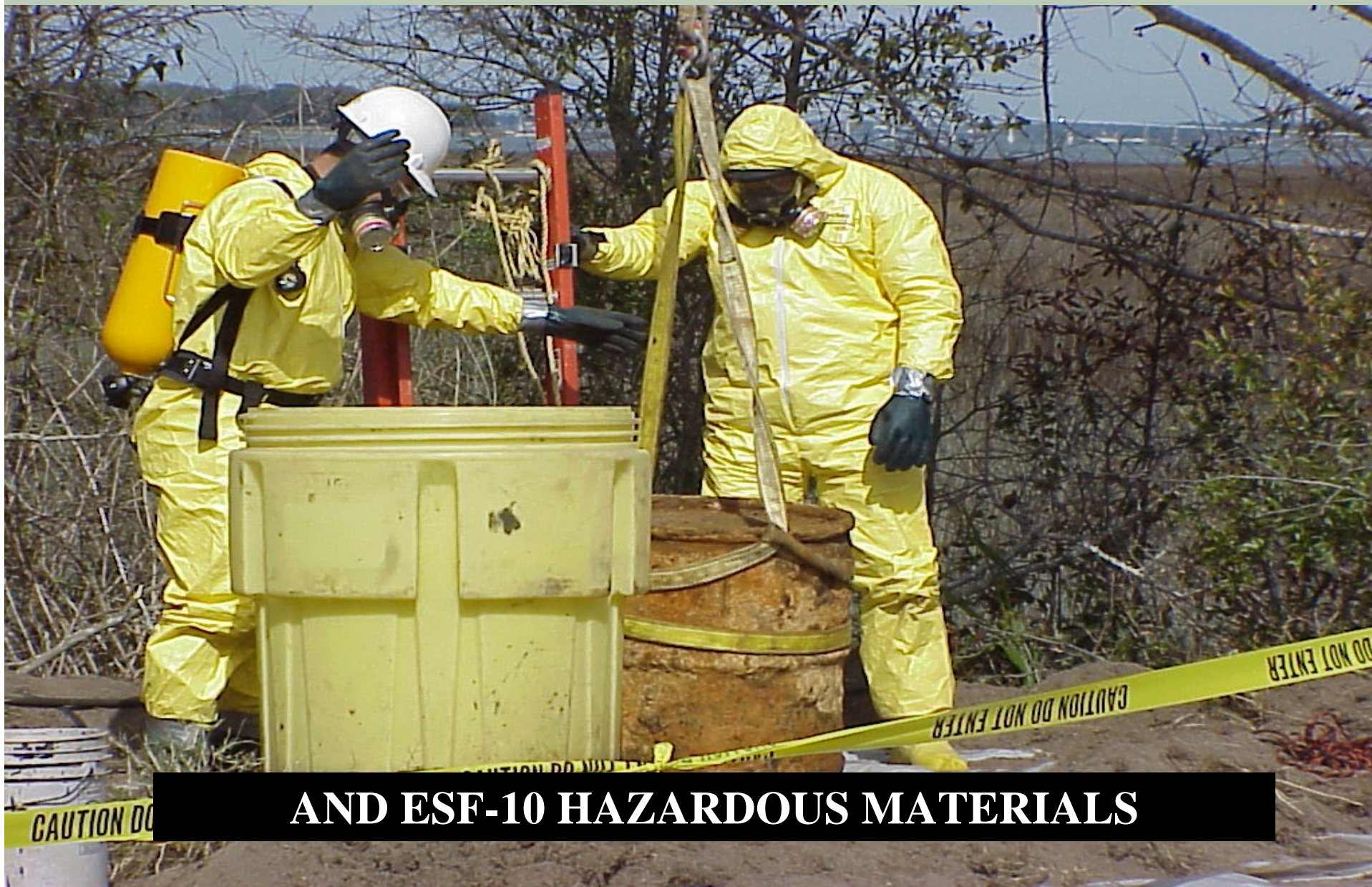


**THE REGIONS PLAN WITH OTHER STATE AGENCIES,
LOCAL GOVERNMENTS AND INDUSTRY FOR
DISASTER RESPONSE. WE LOOK AT WATER, SEWER,
AND DEBRIS MANAGEMENT (ESF – 3).**





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AND ESF-10 HAZARDOUS MATERIALS

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Is that DHEC?????????

Announced vs. Unannounced

- Drinking Water (we are coming on.....)
- Wastewater (Uhh tomorrow?)
- Collection System (day)
- Agricultural (day or so)
- Dams (few days....are you available?)
- Recreational Water - Ah Man ☹
- Private Wells (who is that??)
- Sediment/Erosion - who knows dirt?

CLEAN WATER ACT COMPLIANCE MONITORING INSPECTIONS

- Federal Compliance Evaluation Inspection (CEI)
- Federal Compliance Sampling Inspection (CSI)
- Minor Compliance Sampling Inspection
- Facility Evaluation (Operation & Maintenance) Inspection (FEI)
- Industrial Stormwater Inspections
- General Permit Inspections
- Construction Stormwater Inspections
- Complaints & Sanitary Sewer Overflows (SSO)



When are we coming?????

- 100% yearly on ALL Major Permits
- Once a year on Minors
- 15% General Permits must complete all in 6 years
- Industrial Stormwater complete all in 5 years
- 50% Stormwater sites constructed in District Office coverage area
- 100% yearly on wet facilities
- 25% of dry facilities
- Pretreatment complete all within 5 year period
- MS4's audited within a year



Groundwater (Public Wells), Surface Water and Mastermetered

- Federally and State defined systems
- Once a year, two years, three years and five years

PROBLEMS

- Not following/complying with permit
- Not conducting routine maintenance on distribution or collection system – preventative maintenance
- Not keeping records up to date or available
- Not maintaining a current map or updating map or plans
- Failing to contact SCDHEC during emergency situation(s)
- Operator errors/facility issues

Laboratory Certification Inspections

- State Regulation 61-81 – provides the mechanism to ensure the validity and quality of the environmental quality analyses for compliance with State regulations.
- Laboratories performing environmental quality analyses and producing data for regulatory compliance must be certified. Covers Clean Water Act, Safe Drinking Water Act, Solid and Hazardous Waste.
- Requires on-site evaluations of the laboratories every three years.

What documentation is reviewed during a laboratory evaluation?

- NPDES Permits, DMRs, and MORs.
- Calibration, analysis, and quality control records.
- Chain-of-custody records.
- Laboratory Standard Operating Procedures (SOPs)
- Certificates of Analysis or client reports.
- Proficiency Testing (PT) analysis records.

What types of instruments are evaluated in a laboratory?

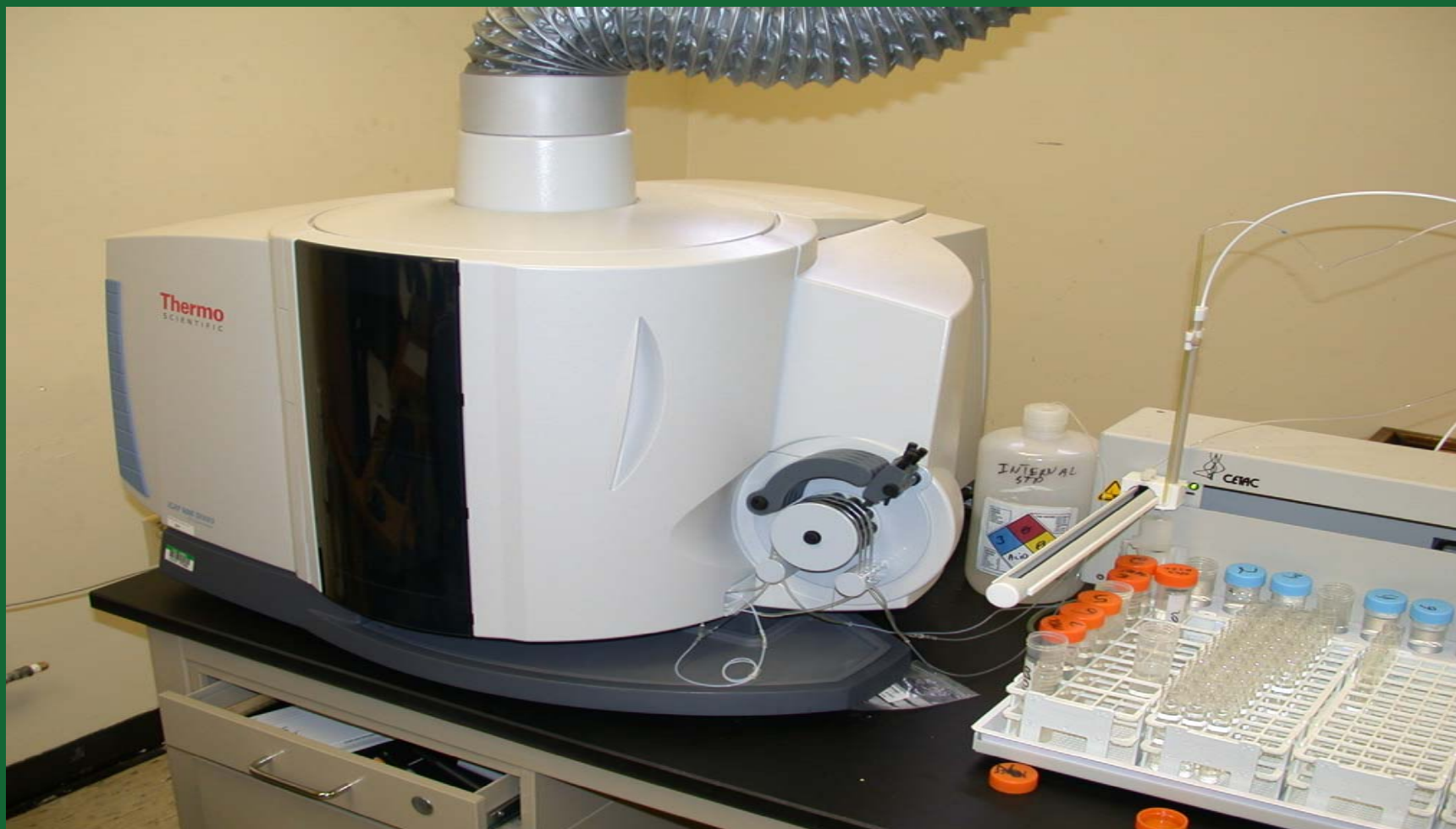
- Majority of facilities are certified for simple field parameter analyses such as pH and residual chlorine



Commercial laboratories have much more complex instruments such as a GC/MS...



or an ICP atomic emission spectrometer.



Drinking water labs also perform monitoring for physical properties such as color and turbidity.



Microbiological testing is also evaluated in drinking water and wastewater labs.



Common Problems Encountered during the Evaluations of Labs

- Incorrect Lab ID number reported on DMRs.
- Use of a non-certified lab for reporting.
- SOPs not present or updated.
- Lack of training for lab analysts.
- Not following the required method.
- QC not meeting method requirements.
- Not meeting sample holding time or preservation requirements.
- Analytical records not maintained properly.

Questions???

